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In the United States Patent and Trademark Office

Appellants: Christopher P. Olson, Joseph D. Coenen, MaryJo Meyer, Paul J. Datta, Eric D. Johnson, Sara Jane M. Freiburger, Jerome S. Veith, Heather S. Mortell, Robert E. Vogt

Serial No.: 10/026,123

Filed: December 17, 2001

For: METHOD FOR MAKING A REFASTENABLE UNDERGARMENT

Docket No.: 16,664

Group: 1734

Examiner: Michelle A Lazor

Date: July 27, 2004

Appeal Brief Transmittal Letter

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. 1.192, transmitted herewith in triplicate is an Appeal Brief pursuant to the Notice of Appeal which was mailed on May 24, 2004.

Please charge the \$330.00 fee, pursuant to 37 C.F.R. 1.17(c), which is due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. This Appeal Brief Transmittal Letter is submitted in duplicate.

Respectfully submitted,

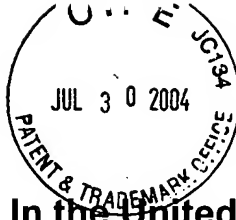
CHRISTOPHER P. OLSON ET AL.

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CERTIFICATE OF MAILING

I, Mary L. Roberts, hereby certify that on July 27, 2004 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By: Mary L. Roberts
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Serial No. 10/026,123

In the United States Patent and Trademark Office

Appellant:	Christopher P. Olson et al.	Docket No.:	16,664
Serial No.:	10/026,123	Group:	1734
Confirmation No.:	5031	Examiner:	Michelle A. Lazor
Filed:	December 17, 2001	Date:	July 27, 2004

For: METHOD FOR MAKING A REFASTENABLE UNDERGARMENT

Brief on Appeal to the Board of Patent Appeals and Interferences

ASSISTANT COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. 1.192 Appellants respectfully submit this Brief in support of their Appeal of the **Final Rejection** of claims 1-23 that was mailed on February 24, 2004. On May 24, 2004, Appellants, pursuant to 37 C.F.R. 1.191, mailed a timely Notice of Appeal which was received in the Patent Office on May 27, 2004. In accordance with 37 C.F.R. 1.192(a) this Appeal Brief is filed in triplicate.

Real Party in Interest

Kimberly-Clark Worldwide, Inc., the assignee of the present patent application, is the real party in interest.

Related Appeals and Interferences

Applicants submit that there are no related Appeals or Interferences.

Status of the Claims

Claims 1-23 are pending in the application.

Claims 1-23 stand rejected and form the subject matter of this appeal.

Status of Amendments Filed Subsequent to Final Rejection

An Amendment After Final was submitted on April 21, 2004. By way of an Advisory Action mailed May 13, 2004, the Examiner considered the request for reconsideration but did not find the application to be in condition for allowance.

Summary of the Invention

In one aspect, the present invention is directed to a method of making an undergarment having refastenable side seams from a substantially two-dimensional web. The web has two longitudinal sides and a first lateral edge extending perpendicularly to the longitudinal sides. The method includes a step of preconditioning the web to include at least four refastening surfaces followed by a step of transporting the web in a processing direction. The method also includes a step of cutting the web along a second lateral edge to form a two-dimensional pre-form that includes the first and the second lateral edges and the two longitudinal edges. Each longitudinal edge has two waist sections and a crotch section located intermediate the waist sections. The refastening surfaces are located adjacent and inboard on the waist sections. The method further includes a step of gripping the pre-form adjacent each waist section with a gripping means in four gripping areas where each gripping area is located near a respective refastening surface. Additionally, the method includes a step of jointly rotating at least the gripping means which hold the gripping areas in the region of one of the lateral edges around at least one hinging axis extending substantially parallel to the lateral edges of the pre-form to place the first lateral edge generally parallel and opposite to the second lateral edge. The method includes the steps of superimposing the refastening surfaces in a contacting relationship and joining the superimposed refastening surfaces in a securing means, thus forming the undergarment. The method further includes the step of releasing the undergarment from the gripping means. **(See, for example, claim 1)**

In another aspect, the present invention is directed to a similar method as that described above except that the "cutting" step entails cutting the web along a second longitudinal edge to form a two-dimensional pre-form that includes the first and the second longitudinal edges and the two lateral edges. **(See, for example, claim 11)** In an additional aspect, the present invention is directed to a similar method as that described above except that the "preconditioning" step entails the web including at least two areas of hook material and two areas of mating loop material. **(See, for example, claim 12)**

The Issues Presented

In the First Office Action mailed November 5, 2003, the Examiner rejects claims 1-3, 5, 7, 11-14 and 20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,779,831 issued to Schmitz (hereinafter "the Schmitz patent") in view of U.S. Patent No. 6,210,388 issued to Widlund et al. (hereinafter "the Widlund patent").

The Examiner believes the Schmitz patent discloses a method of making an undergarment having refastenable side seams from a substantially two-dimensional web. (See Appendix B for the portions of the Schmitz patent cited by the Examiner). The Examiner believes the Schmitz patent discloses a web having two longitudinal sides and a first lateral edge or two lateral sides and a first longitudinal edge. The Examiner also believes the Schmitz patent discloses the steps of transporting the web in a processing direction and cutting the web along a second side or edge to form a two-dimensional pre-form that includes the first and the second lateral edges and the two longitudinal edges. The Examiner believes the Schmitz patent discloses each longitudinal edge has two waist sections and a crotch section located intermediate the waist sections. The Examiner also believes the Schmitz patent discloses a sealing or fastening surface located adjacent and inboard on the waist sections. The Examiner further believes the Schmitz patent discloses a step of gripping the pre-form adjacent each waist section with a gripping means in four gripping areas where each gripping area is located near a respective fastening surface. The Examiner believes the Schmitz patent discloses a step of jointly rotating at least the gripping means which hold the gripping areas in the region of one of the lateral edges around at least one hinging axis extending substantially parallel to the lateral edges of the pre-form to place the first lateral edge generally parallel and opposite to the second lateral edge. The Examiner also believes the Schmitz patent discloses superimposing the sealing or fastening surfaces in a securing means in order to form the undergarment and releasing the undergarment from the gripping means. The Examiner believes the Schmitz patent also discloses using hook and loop material as mechanical fasteners as an alternative to overlapping seams.

The Examiner acknowledges that the Schmitz patent does not disclose preconditioning the web to include at least four refastening surfaces. The Examiner believes however that the Widlund patent discloses preconditioning a web to include hook and loop refastening surfaces before cutting. (See Appendix C for the portions of the Widlund patent cited by the Examiner). The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to precondition the web to include hook and loop refastening surfaces because the Examiner believes it is well known in the art to add fasteners to the web before cutting the web into individual diapers.

With respect to claims 2, 3, 13 and 14, the Examiner believes the Schmitz patent discloses the step of forming the web by combining a liquid-impervious backsheet, an absorbent core and a liquid-pervious topsheet, such that the undergarment is an absorbent article. The Examiner also believes the Schmitz patent discloses the pre-form including an exterior surface and a body-contacting surface opposite the exterior surface and the waist sections defining a front waist section and a back waist section. With respect to claim 5, the Examiner believes the Widlund patent discloses two of the refastening surfaces being located on the body-contacting surface of the front waist section and two of the refastening surfaces being located on the exterior surface of the back waist section. The Examiner

believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place two refastening surfaces on the body-contacting surface of the front waist section and two refastening surfaces on the exterior surface of the back waist section because the Examiner believes it is well known and conventional to place the refastening surfaces in a number of configurations along the waist section. With respect to claims 7 and 20, the Examiner believes the Schmitz patent discloses that prior to cutting of the web, portions of the web which form adjacent pre-forms are joined to each other by the back waist section of one pre-form and the front waist section of the adjacent pre-form.

Also in the Office Action mailed November 5, 2003, the Examiner rejects claims 4, 8 and 15-18 under 35 U.S.C. §103(a) as being unpatentable over the Schmitz patent in view of the Widlund patent as applied to claims 3 and 14 and further in view of International Application Number PCT/US99/29704 having inventors, Fletcher et al. (hereinafter "the Fletcher application").

With respect to claim 4, the Examiner believes the Schmitz patent in view of the Widlund patent discloses the limitations of claim 3, but the Examiner acknowledges that the combination does not disclose two of the refastening surfaces being located on the exterior surface of the front waist section and two of the refastening surfaces being located on the body-contacting surface of the back waist section. The Examiner believes the Fletcher application discloses a configuration of two refastening surfaces being located on the exterior surface of the front waist section and two refastening surfaces being located on the body-contacting surface of the back waist section. (See Appendix D for the portions of the Fletcher application cited by the Examiner). The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place refastening surfaces in a number of configurations along the waist section, including the claimed placement.

With respect to claim 8, the Examiner believes the Widlund patent discloses "a step of folding inward a portion of the longitudinal edge of a waist section prior to jointly rotating the gripping means". The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to fold inward a portion of the longitudinal edge of the front waist section "prior to jointly rotating the gripping means so that the front and rear side parts thereof are placed edge-to-edge, and the coacting parts are pressed firmly against one another."

With respect to claims 15 and 16, the Examiner believes the Fletcher application discloses mating hook material located on the exterior surface of the front waist section, and the areas of loop material located on the body-contacting surface of the back waist section. The Examiner also believes the Fletcher application discloses mating loop material located on the exterior surface of the front waist section and areas of hook material located on the body-contacting surface of the back waist section. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place the hook and loop materials on either the exterior front waist section or the body-

contacting back waist section since it is well known and conventional to place the refastening surfaces in a number of configurations along the waist section as alternative and equivalent embodiments.

With respect to claims 17 and 18, the Examiner believes the Widlund patent discloses the configuration of fasteners located on the body-contacting surface of the front waist section and fasteners located on the exterior surface of the back waist section. The Examiner further believes that the Fletcher application discloses locating the hook material and loop material irrespective of the location of the fasteners. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place the hook and loop materials on either the body-contacting front waist section or the exterior back waist section since it is well known and conventional to place the refastening surfaces in a number of configurations along the waist section as alternative and equivalent embodiments.

Further in the Office Action mailed November 5, 2003, the Examiner rejects claims 6 and 19 under 35 U.S.C. §103(a) as being unpatentable over the Schmitz patent in view of the Widlund patent as applied to claims 3 and 14 and further in view of U.S. Patent No. 5,399,219 issued to Roessler et al. (hereinafter "the Roessler patent").

The Examiner believes the Schmitz patent and the Widlund patent disclose all of the limitations of claim 3, but the Examiner acknowledges that the combination does not disclose that prior to cutting of the web, portions of the web which form adjacent pre-forms are joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form. The Examiner believes that the Roessler patent discloses this design. (See Appendix E for the portions of the Roessler patent cited by the Examiner). The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to design the web to include adjacent pre-forms joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form since this is a well-known and conventional design of a web for making garments.

Also in the Office Action mailed November 5, 2003, the Examiner rejects claims 9, 10 and 21-23 under 35 U.S.C. §103(a) as being unpatentable over the Schmitz patent in view of the Widlund patent as applied to claims 3 and 14 and further in view of GB 2,303,045 issued to Johansson et al. (hereinafter "the Johansson patent").

With respect to claims 9, 21 and 22, the Examiner believes the Schmitz patent and the Widlund patent disclose all of the limitations of claim 3, but the Examiner acknowledges that the combination does not disclose two of the refastening surfaces located on the body-contacting surface of the front waist section comprising both hook and loop material and two of the refastening surfaces located on the body-contacting surface of the back waist section comprising both hook and loop material. The Examiner believes the Johansson patent discloses two of the refastening surfaces located on the body-

contacting surface of the front waist section comprising both hook and loop material and two of the refastening surfaces located on the body-contacting surface of the back waist section comprising both hook and loop material. (See Appendix F for the portions of the Johansson patent cited by the Examiner). The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place two of the refastening surfaces located on the body-contacting surface of the front waist section comprising both hook and loop material and two of the refastening surfaces located on the body-contacting surface of the back waist section comprising both hook and loop material to avoid peeling forces and for a simplified manufacturing process.

With respect to claims 10 and 23, the Examiner believes the Widlund patent discloses a step of folding inward toward the exterior surface of the pre-form joined superimposed refastening surfaces and bonding the joined superimposed refastening surfaces to the exterior surface of the pre-form. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to fold inward toward the exterior surface of the pre-form a joined superimposed refastening surface and bonding the joined superimposed refastening surface to the exterior surface of the pre-form so that the abutted fasteners are not sticking out of the diaper.

In the Appellants's response filed February 5, 2004, Appellants respond to the Examiner's rejection of the claims over the combinations of: (1) the Schmitz and Widlund patents; (2) the Schmitz and Widlund patents and the Fletcher application; (3) the Schmitz, Widlund and Roessler patents; and (4) the Schmitz, Widlund and Johansson patents.

In the Final Office Action mailed February 24, 2004, the Examiner indicates that she believes the Schmitz patent and the Widlund patent are considered compatible since they both address methods of manufacturing pants-type diapers. The Examiner believes that although the specific methods are different, one in the art would be motivated to precondition a web to include hook and loop refastening surfaces before cutting as disclosed by the Widlund patent, since by disclosing this feature, the Widlund patent shows it is well known in the art to do so. The Examiner believes one would also be motivated to precondition the web as an alternative to placing the hook and loop refastening surfaces after cutting. With respect to claim 8, the Examiner acknowledges that neither the Widlund patent nor the Fletcher application disclose jointly rotating a gripping means. However, the Examiner believes the Office Action addressed the jointly rotating gripping means as being disclosed by the Schmitz patent in claims 1, 11 and 12. The Examiner believes claim 8 specifically discusses the limitation of a step of folding inward a portion of the longitudinal edge of a waist section, which the Widlund patent discloses. In response to Appellants's arguments that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, the Examiner believes it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. The Examiner believes so long as it takes into account only knowledge which was within

the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

In the Advisory Action mailed May 13, 2004, the Examiner indicates that she considers there to be motivation to modify the Schmitz patent since one in the art wishing to include hook and loop fasteners would look to see how they are commonly placed onto a diaper. The Examiner believes the Widlund patent discloses how one in the art at the time of the invention would add hook and loop fasteners to a diaper, and therefore it is considered obvious to modify the Schmitz patent to include hook and loop fasteners before cutting the web into individual diapers since this is well known and conventionally done in the art.

1. Whether claims 1-3, 5, 7, 11-14 and 20 are unpatentable under 35 U.S.C. § 103 over the Schmitz patent in view of the Widlund patent?

A. Specifically, has the Examiner met the burden of establishing a *prima facie* case of obviousness?

1. Has the Examiner met the burden of establishing that there is a suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references and to combine the teachings of the references?

i. Claim Group I: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of making an undergarment having refastenable side seams from a substantially two-dimensional web, the web having two longitudinal sides and a first lateral edge extending perpendicularly to the longitudinal sides, the method comprising the steps of: preconditioning the web to include at least four refastening surfaces; transporting the web in a processing direction; cutting the web along a second lateral edge to form a two-dimensional pre-form that includes the first and the second lateral edges and the two longitudinal edges; each longitudinal edge having two waist sections and a crotch section located intermediate the waist sections; the refastening surfaces are located adjacent and inboard on the waist sections; gripping the pre-form adjacent each waist section with a gripping means in four gripping areas, each gripping area being located near a respective refastening surface; jointly rotating at least the gripping means which hold the gripping areas in the region of one of the lateral edges around at least one hinging axis extending substantially parallel to the lateral edges of the pre-form to place the first lateral edge generally parallel and opposite to the second lateral edge; superimposing the refastening surfaces in a contacting relationship; joining the superimposed refastening surfaces in a securing means, thus forming the undergarment; and releasing the undergarment from the gripping means?

ii. Claim Group III: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of Claim Group I wherein two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the exterior surface of the back waist section?

2. Has the Examiner met the burden of establishing that there would be a reasonable expectation of success? (Claim Groups I and III)

3. Has the Examiner met the burden of establishing that the combination of the Schmitz patent and the Widlund patent teach or suggest all the claim limitations?

i. Claim Group I: Has the Examiner shown that the combination of the Schmitz patent and the Widlund patent teach or suggest all of the claim limitations including the step of “preconditioning the web to include at least four refastening surfaces”?

ii. Claim Group III: Has the Examiner shown that the combination of the Schmitz patent and the Widlund patent teach or suggest all of the claim limitations including “wherein two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the exterior surface of the back waist section?”

2. Whether claims 4, 8 and 15-18 are unpatentable under 35 U.S.C. § 103 over the Schmitz patent in view of the Widlund patent and further in view of the Fletcher application?

A. Specifically, has the Examiner met the burden of establishing a *prima facie* case of obviousness?

1. Has the Examiner met the burden of establishing that there is a suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references and to combine the teachings of the references?

i. Claim Group II: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of Claim Group I wherein two of the refastening surfaces are located on the exterior surface of the front waist section and two of the refastening surfaces are located on the body-contacting surface of the back waist section?

ii. Claim Group III: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of Claim Group I wherein two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the exterior surface of the back waist section?

iii. Claim Group V: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of Claim Group I further comprising a step of folding inward a portion of the longitudinal edge of the front waist section prior to jointly rotating the gripping means to facilitate joining of the superimposed refastening surfaces?

2. Has the Examiner met the burden of establishing that there would be a reasonable expectation of success? (Claim Groups II, III & V)

3. Whether claims 6 and 19 are unpatentable under 35 U.S.C. § 103 over the Schmitz patent in view of the Widlund patent and further in view of the Roessler patent?

A. Specifically, has the Examiner met the burden of establishing a *prima facie* case of obviousness?

1. Has the Examiner met the burden of establishing that there is a suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references and to combine the teachings of the references?

i. Claim Group IV: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of Claim Group I wherein, prior to cutting of the web, there are portions of the web that will form adjacent pre-forms and the adjacent pre-forms are joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form?

2. Has the Examiner met the burden of establishing that there would be a reasonable expectation of success? (Claim Group IV)

4. Whether claims 9, 10 and 21-23 are unpatentable under 35 U.S.C. § 103 over the Schmitz patent in view of the Widlund patent and further in view of the Johansson patent?

A. Specifically, has the Examiner met the burden of establishing a *prima facie* case of obviousness?

1. Has the Examiner met the burden of establishing that there is a suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references and to combine the teachings of the references?

i. Claim Group VI: Has the Examiner shown that the suggestion or motivation exists in the references or in the knowledge generally available to one of ordinary skill in the art to modify the references and to combine the teachings of the references to arrive at a method of Claim Group I wherein two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the body-contacting surface of the back waist section?

2. Has the Examiner met the burden of establishing that there would be a reasonable expectation of success? (Claim Group VI)

Grouping of the Claims

For the rejections described in Issue 1:

Group I: Claims 1-3, 7, 11-14 and 20 stand or fall as a group.

Group III: Claims 5, 17 and 18 stand or fall as a group.

For the rejections described in Issue 2:

Group II: Claims 4, 15 and 16 stand or fall as a group.

Group III: Claims 5, 17 and 18 stand or fall as a group.

Group V: Claim 8 stands or falls as a group.

For the rejections described in Issue 3:

Group IV: Claims 6 and 19 stand or fall as a group.

For the rejections described in Issue 4:

Group VI: Claims 9, 10 and 21-23 stand or fall as group.

The rejected claims do not stand or fall together. The claims should be considered in six groups for the reasons provided in the Argument section below.

Argument

In order to establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143. The Examiner bears the initial burden of establishing the *prima facie* case. See In re Piasecki, 223 U.S.P.Q. 785,787, 745 F.2d 1468, 1471 (Fed. Cir. 1984).

ISSUE 1

Claim Group I includes independent claims 1, 11 and 12, which are summarized in the “Summary of the Invention” section above.

Claim Group III includes dependent claims 5, 17 and 18 (though claims 17 and 18 are not rejected as part of “Issue 1”). The claims of Claim Group III do not “stand or fall” with Group I because they are directed to the additional feature of “two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the exterior surface of the back waist section”.

1. The Examiner has not met the burden of establishing prima facie obviousness by failing to identify the motivation in the Schmitz patent for modifying its teachings with the teachings of the Widlund patent.

The Examiner acknowledges that the Schmitz patent does not disclose the “preconditioning the web to include at least four refastening surfaces” aspect of the present invention. However, the Examiner believes the Widlund patent discloses preconditioning a web to include hook and loop refastening surfaces before cutting. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to precondition the web to include hook and loop refastening surfaces since it is well known in the art to add fasteners to the web before cutting the web into individual diapers. Appellants contend that the Examiner did not sufficiently identify motivation for why one of skill in the art would modify the method of the Schmitz patent with aspects of the Widlund patent.

The Federal Circuit discussed the standard for establishing whether there is suggestion or motivation to combine prior art references, without engaging in an improper “hindsight” determination in Ruiz v. A.B. Chance Co., 357 F.3d 1270, 69 U.S.P.Q.2d 1686 (Fed. Cir. 2004). The Court explained the desirability of considering an invention “as a whole”: “In making the assessment of differences, section 103 specifically requires consideration of the claimed invention ‘as a whole’. Inventions

typically are new combinations of existing principles or features.” Ruiz, 357 F.3d at 1275 (citing Environmental Designs, Ltd. V. Union Oil Co., 713 F.2d 693, 698 (Fed. Cir. 1983)). Looking at the invention as a whole, the examiner must show some suggestion or motivation, before the invention itself, to make the new combination. Id. (See In re Rouffet, 149 F.3d 1350, 1355-56 (Fed Cir. 1998)). The Court in Ruiz provided that it “has consistently stated that a court or examiner may find a motivation to combine prior art references in the nature of the problem to be solved.” Id. at 1276. While the Ruiz Court affirmed the district court’s determination that the two references combined to form the basis of a §103 rejection addressed precisely the same problem, such is not the case for the references cited against the claims of the present invention.

The Schmitz patent is directed to a method of making an undergarment having side seams where the method includes cutting a web to form a pre-form, gripping the pre-form in four gripping areas, jointly rotating gripping means holding the gripping areas, superimposing the sealing areas and joining the superimposed sealing areas in a sealing means. (See Col. 1, lines 43-67 of the Schmitz patent). Hence, in the method of the Schmitz patent, the web is cut into individual pre-forms and the individual pre-forms must be manipulated to bring the sealing areas in contacting relationship with each other. Conversely, the Widlund patent is directed to a method of manufacturing pants-type diapers in which the web is not cut into individual diapers until after the side parts are fastened together. (See Col. 4, lines 22-40 of the Widlund patent). Therefore, the methods of the Schmitz patent and the Widlund patent are very different from each other and do not solve the same types of problems¹. For example, because individual pre-forms are formed before sealing, the method of the Schmitz patent involves a controlled handover of the pre-form from the transport means to a folding-and-sealing unit, where the position of each sealing area during all phases of the transport step and the handover step is clearly defined.

¹ More specifically, the Widlund patent discloses a “web moving through the guide means 28 is thus comprised of a string of mutually joined pants-type diapers which after exiting from the guide means 28 are separated from one another by means of an appropriate cutting tool 29”. (See Col. 4, lines 34-37 of the Widlund patent). Hence, with the method of the Widlund patent, the web includes a string of mutually joined pants-type diapers that are then separated from each other. Conversely, the methods of the Schmitz patent involve a continuous web that is transported in a substantially flattened state and that is cut transversely to form individual blanks prior to undergarments having a “pant-like” configuration being formed. (See Col. 7, lines 2-6 of the Schmitz patent). The methods described in the Schmitz patent and the Widlund patent are not compatible with each other and therefore, one of skill in the art would not be motivated to select a step from the method of the Widlund patent and integrate it with the method of the Schmitz patent.

2. The Examiner has not met the burden of establishing prima facie obviousness by failing to explain how there would be a reasonable expectation of success after combining aspects of the Widlund patent with the methods of the Schmitz patent.

The Examiner has failed to show how there would be a reasonable expectation of success associated with combining aspects of the Widlund patent with the methods of the Schmitz patent. For the reasons stated above, the method of the Widlund patent is not compatible with the methods of the Schmitz patent. Therefore, the combination of these two references lacks a reasonable expectation of success. Both the suggestion and the expectation of success must be found in the cited references, not in Appellants' disclosure. *In re Dow Chemical*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

3. The Examiner has not met the burden of establishing prima facie obviousness because the combination of the Schmitz patent and the Widlund patent do not teach or suggest all of the claim limitations of the present invention.

Because the Widlund patent is directed to a completely different method of manufacturing an absorbent article in the form of a pants-type diaper, the Widlund patent does not teach a step of "preconditioning the web to include at least four refastening surfaces" that can be used within the methods of the Schmitz patent. The dissimilarity of the method of the Widlund patent negates the Examiner's reasoning that the Widlund patent teaches or suggests a step of "preconditioning the web to include at least four refastening surfaces" within the methods of independent claims 1, 11 and 12 of the present invention (Claim Group I). Likewise, the Widlund patent is not capable of teaching or suggesting the aspect of two of the refastening surfaces being located on the body-contacting surface of the front waist section and two of the refastening surfaces being located on the exterior surface of the back waist section in the context of the presently claimed invention (Claim Group III).

For at least these reasons, Appellants assert that a *prima facie* case of obviousness has not been made and that the claims of Claim Group I and Claim Group III are separately patentable over the references.

ISSUE 2

Claim Group II includes dependent claims 4, 15 and 16. The claims of Claim Group II do not "stand or fall" with Group I because they are directed to the additional feature of "two of the refastening surfaces are located on the exterior surface of the front waist section and two of the refastening surfaces are located on the body-contacting surface of the back waist section".

Claim Group III includes dependent claims 5, 17 and 18 (though claim 5 is not rejected as part of “Issue 2”). The claims of Claim Group III do not “stand or fall” with Group I because they are directed to the additional feature of “two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the exterior surface of the back waist section”.

Claim Group V includes dependent claim 8. The claim of Claim Group V does not “stand or fall” with Group I because it is directed to the additional step of “folding inward a portion of the longitudinal edge of the front waist section prior to jointly rotating the gripping means to facilitate joining of the superimposed refastening surfaces”.

1. The Examiner has not met the burden of establishing prima facie obviousness by failing to identify the motivation in the Schmitz patent for modifying its teachings with the teachings of the Widlund patent and the Fletcher application.

The Examiner acknowledges that the Schmitz patent and the Widlund patent fail to disclose two of the refastening surfaces being located on the exterior surface of the front waist section and two of the refastening surfaces being located on the body-contacting surface of the back waist section. However, the Examiner believes that the Fletcher application discloses this configuration. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place the refastening surfaces in a number of configurations along the waist section. Appellants contend that the Examiner did not sufficiently identify motivation for why one of skill in the art would modify the method of the Schmitz patent with aspects of the Widlund patent and aspects of the Fletcher application.

There is no motivation or suggestion to combine the teachings of the Schmitz patent and the Widlund patent for the reasons provided above. The Examiner fails to identify why one of skill in the art would modify the methods of the Schmitz patent with aspects of the method described in the Widlund patent and then further modify the methods with features from the Fletcher application.

2. The Examiner has not met the burden of establishing prima facie obviousness by failing to explain how there would be a reasonable expectation of success after combining aspects of the Widlund patent and the Fletcher application with the methods of the Schmitz patent.

The Examiner has failed to show how there would be a reasonable expectation of success associated with combining aspects of the Widlund patent and the Fletcher application with the methods of the Schmitz patent. For the reasons stated above, the method of the Widlund patent is not compatible with the methods of the Schmitz patent. Therefore, the combination of these three references lacks a reasonable expectation of success.

For at least these reasons, Appellants assert that a *prima facie* case of obviousness has not been made and that the claims of Claim Group II, Claim Group III and Claim Group V are separately patentable over the references.

ISSUE 3

Claim Group IV includes dependent claims 6 and 19. The claims of Claim Group IV do not “stand or fall” with Group I because they are directed to the additional feature of “prior to cutting of the web, there are portions of the web that will form adjacent pre-forms and the adjacent pre-forms are joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form”.

1. The Examiner has not met the burden of establishing prima facie obviousness by failing to identify the motivation in the Schmitz patent for modifying its teachings with the teachings of the Widlund patent and the Roessler patent.

The Examiner acknowledges that the Schmitz patent and the Widlund patent do not disclose prior to cutting of the web, portions of the web which form adjacent pre-forms are joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form. However, the Examiner believes the Roessler patent discloses this aspect. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to design the web to include adjacent pre-forms joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form “since this is a well-known and conventional design of a web for making garments as claimed”. Appellants contend that the Examiner did not sufficiently identify motivation for why one of skill in the art would modify the method of the Schmitz patent with aspects of the Widlund patent and aspects of the Roessler patent.

There is no motivation or suggestion to combine the teachings of the Schmitz patent and the Widlund patent for the reasons provided above. The Examiner fails to identify why one of skill in the art would modify the methods of the Schmitz patent with aspects of the method described in the Widlund patent and then further modify the methods with features from the Roessler patent. The Roessler patent is related to fastening systems, including adhesive tape and interlocking, mechanical-type fastening systems, for disposable garments. (See Col. 1, lines 6-12 of the Roessler patent). The Roessler patent does not describe methods for manufacturing absorbent articles having “pant-like” configurations.

2. The Examiner has not met the burden of establishing prima facie obviousness by failing to explain how there would be a reasonable expectation of success after combining aspects of the Widlund patent and the Roessler patent with the methods of the Schmitz patent.

The Examiner has failed to show how there would be a reasonable expectation of success associated with combining aspects of the Widlund patent and the Roessler patent with the methods of the Schmitz patent. For the reasons stated above, the method of the Widlund patent is not compatible with the methods of the Schmitz patent. Second, the Roessler patent does not relate to methods of manufacturing absorbent articles having “pant-like” configurations. Therefore, the combination of these three references lacks a reasonable expectation of success.

For at least these reasons, Appellants assert that a *prima facie* case of obviousness has not been made and that the claims of Claim Group IV are separately patentable over the references.

ISSUE 4

Claim Group VI includes dependent claims 9, 10 and 21-23. The claims of Claim Group VI do not “stand or fall” with Group I because they are directed to the additional feature of “two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the body-contacting surface of the back waist section”.

1. The Examiner has not met the burden of establishing prima facie obviousness by failing to identify the motivation in the Schmitz patent for modifying its teachings with the teachings of the Widlund patent and the Johansson patent.

The Examiner acknowledges that the Schmitz patent and the Widlund patent do not disclose the features of claims 9, 10 and 21-23. The Examiner believes the Johansson patent discloses two of the refastening surfaces located on the body-contacting surface of the front waist section comprising both hook and loop material and two of the refastening surfaces located on the body-contacting surface of the back waist section comprising both hook and loop material. The Examiner believes it would have been obvious to one of ordinary skill in the art at the time of the invention to place two of the refastening surfaces located on the body-contacting surface of the front waist section and two of the refastening surfaces located on the body-contacting surface of the back waist section to avoid peeling forces and for a simplified manufacturing process. Appellants contend that the Examiner did not sufficiently identify motivation for why one of skill in the art would modify the method of the Schmitz patent with aspects of the Widlund patent and aspects of the Johansson patent.

There is no motivation or suggestion to combine the teachings of the Schmitz patent and the Widlund patent for the reasons provided above. The Examiner fails to identify why one of skill in the

art would modify the methods of the Schmitz patent with aspects of the method described in the Widlund patent and then further modify the methods with features from the Johansson patent.

2. The Examiner has not met the burden of establishing prima facie obviousness by failing to explain how there would be a reasonable expectation of success after combining aspects of the Widlund patent and the Johansson patent with the methods of the Schmitz patent.

The Examiner has failed to show how there would be a reasonable expectation of success associated with combining aspects of the Widlund patent and the Johansson patent with the methods of the Schmitz patent. For the reasons stated above, the method of the Widlund patent is not compatible with the methods of the Schmitz patent. Therefore, the combination of these three references lacks a reasonable expectation of success.

For at least these reasons, Appellants assert that a *prima facie* case of obviousness has not been made and that the claims of Claim Group VI are separately patentable over the references.

In view of the above Arguments, it is respectfully submitted that the rejections of claims 1-23 under 35 U.S.C. § 103 are in error. Accordingly, Appellants respectfully request that the Examiner's rejections be reversed. Please charge the \$320.00 fee, pursuant to 37 C.F.R. 1.17(f), for filing this Appeal Brief to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. Any additional prosecutorial fees which are due may also be charged to deposit account number 11-0875.

The undersigned may be reached at: (920) 721-2433.

Respectfully submitted,

CHRISTOPHER P. OLSON ET AL.

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Registration No.: 40,596

CERTIFICATE OF MAILING

I, Mary L. Roberts, hereby certify that on July 27, 2004 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, CA 22313-1450.

By: Mary L. Roberts
Mary L. Roberts

Appendix A – The Claims On Appeal

1. Method of making an undergarment having refastenable side seams from a substantially two-dimensional web, the web having two longitudinal sides and a first lateral edge extending perpendicularly to the longitudinal sides, the method comprising the steps of:

preconditioning the web to include at least four refastening surfaces;

transporting the web in a processing direction;

cutting the web along a second lateral edge to form a two-dimensional pre-form that includes the first and the second lateral edges and the two longitudinal edges; each longitudinal edge having two waist sections and a crotch section located intermediate the waist sections; the refastening surfaces are located adjacent and inboard on the waist sections;

gripping the pre-form adjacent each waist section with a gripping means in four gripping areas, each gripping area being located near a respective refastening surface;

jointly rotating at least the gripping means which hold the gripping areas in the region of one of the lateral edges around at least one hinging axis extending substantially parallel to the lateral edges of the pre-form to place the first lateral edge generally parallel and opposite to the second lateral edge;

superimposing the refastening surfaces in a contacting relationship;

joining the superimposed refastening surfaces in a securing means, thus forming the undergarment; and

releasing the undergarment from the gripping means.

2. The method of claim 1, further comprising the step of forming the web by combining a liquid-impervious backsheet, an absorbent core and a liquid-pervious topsheet, such that the undergarment is an absorbent article.

3. The method of claim 1 wherein the pre-form includes an exterior surface and a body-contacting surface opposite the exterior surface; and the waist sections define a front waist section and a back waist section.

4. The method of claim 3, wherein two of the refastening surfaces are located on the exterior surface of the front waist section and two of the refastening surfaces are located on the body-contacting surface of the back waist section.

5. The method of claim 3, wherein two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the exterior surface of the back waist section.
6. The method of claim 3, wherein, prior to cutting of the web, there are portions of the web that will form adjacent pre-forms and the adjacent pre-forms are joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form.
7. The method of claim 3, wherein, prior to cutting of the web, there are portions of the web that will form adjacent pre-forms and the adjacent pre-forms are joined to each other by the back waist section of one pre-form and the front waist section of the adjacent pre-form.
8. The method of claim 4, further comprising a step of folding inward a portion of the longitudinal edge of the front waist section prior to jointly rotating the gripping means to facilitate joining of the superimposed refastening surfaces.
9. The method of claim 3, wherein two of the refastening surfaces are located on the body-contacting surface of the front waist section and two of the refastening surfaces are located on the body-contacting surface of the back waist section.
10. The method of claim 9, further comprising a step of folding inward toward the exterior surface of the pre-form the joined superimposed refastening surfaces and bonding the joined superimposed refastening surfaces to the exterior surface of the pre-form.
11. Method of making an undergarment having refastenable side seams from a substantially two-dimensional web, the web having two lateral sides and a first longitudinal edge extending perpendicularly to the lateral sides, the method comprising the steps of:
 - preconditioning the web to include at least four refastening surfaces;
 - transporting the web in a processing direction;

cutting the web along a second longitudinal edge to form a two-dimensional pre-form that includes the first and the second longitudinal edges and the two lateral edges; each longitudinal edge having two waist sections and a crotch section located intermediate the waist sections; the refastening surfaces are located adjacent and inboard on the waist sections;

gripping the pre-form adjacent each waist section with a gripping means in four gripping areas, each gripping area being located near a respective refastening surface;

jointly rotating at least the gripping means which hold the gripping areas in the region of one of the lateral edges around at least one hinging axis extending substantially parallel to the lateral edges of the pre-form to place one of the lateral edges generally parallel and opposite to the other lateral edge;

superimposing the refastening surfaces in a contacting relationship;

joining the superimposed refastening surfaces in a securing means, thus forming the undergarment; and

releasing the undergarment from the gripping means.

12. Method of making an undergarment having refastenable side seams from a substantially two-dimensional web, the web having two longitudinal sides and a first lateral edge extending perpendicularly to the longitudinal sides, the method comprising the steps of:

preconditioning the web to include at least two areas of hook material and two areas of mating loop material;

transporting the web in a processing direction;

cutting the web along a second lateral edge to form a two-dimensional pre-form that includes the first and the second lateral edges and the two longitudinal edges; each longitudinal edge having two waist sections and a crotch section located intermediate the waist sections; the areas of hook material and areas of mating loop material are located adjacent and inboard on the waist sections;

gripping the pre-form adjacent each waist section with a gripping means in four gripping areas, two of the gripping areas being located near respective areas of hook material and two of the gripping areas being located near respective areas of mating loop material;

jointly rotating at least the gripping means which hold the gripping areas in the region of one of the lateral edges around at least one hinging axis extending substantially parallel to the lateral edges of the pre-form to place the first lateral edge generally parallel and opposite to the second lateral edge;

superimposing the areas of hook material with the areas of mating loop material in a contacting relationship;

joining the superimposed areas of hook material and areas of mating loop material in a securing means, thus forming the undergarment; and
releasing the undergarment from the gripping means.

13. The method of claim 12, further comprising the step of forming the web by combining a liquid-impervious backsheet, an absorbent core and a liquid-pervious topsheet, such that the undergarment is an absorbent article.

14. The method of claim 12 wherein the pre-form includes an exterior surface and a body-contacting surface opposite the exterior surface; and the waist sections define a front waist section and a back waist section.

15. The method of claim 14, wherein the areas of mating loop material are located on the exterior surface of the front waist section and the areas of hook material are located on the body-contacting surface of the back waist section.

16. The method of claim 14, wherein the areas of hook material are located on the exterior surface of the front waist section and the areas of mating loop material are located on the body-contacting surface of the back waist section.

17. The method of claim 14, wherein the areas of mating loop material are located on the body-contacting surface of the front waist section and the areas of hook material are located on the exterior surface of the back waist section.

18. The method of claim 14, wherein the areas of hook material are located on the body-contacting surface of the front waist section and the areas of mating loop material are located on the exterior surface of the back waist section.

19. The method of claim 14, wherein, prior to cutting of the web, there are portions of the web that will form adjacent pre-forms and the adjacent pre-forms are joined to each other by the back waist section of one pre-form and the back waist section of the adjacent pre-form.

20. The method of claim 14, wherein, prior to cutting of the web, there are portions of the web that will form adjacent pre-forms and the adjacent pre-forms are joined to each other by the back waist section of one pre-form and the front waist section of the adjacent pre-form.

21. The method of claim 14, wherein the areas of hook material are located on the body-contacting surface of the front waist section and the areas of mating loop material are located on the body-contacting surface of the back waist section.

22. The method of claim 14, wherein the areas of mating loop material are located on the body-contacting surface of the front waist section and the areas of hook material are located on the body-contacting surface of the back waist section.

23. The method of claim 22, further comprising a step of folding inward to the exterior surface of the pre-form the joined superimposed areas of hook material and areas of loop material and bonding the joined superimposed areas of hook material and areas of loop material to the exterior surface of the pre-form.

Appendix B

Portions of the Schmitz patent cited by the Examiner:

Col. 15, lines 4-49:

What is claimed is:

1. Method of making an undergarment (1) having side seams (7, 9, 16, 18) from a substantially two-dimensional web (58), the web having two longitudinal sides (28, 30) and a first transverse edge (24, 31) extending transversely to the longitudinal sides, the method comprising the steps of:
 transporting the web (58) in a substantially flattened position on a transport means (73, 105, 107, 112) along a transport trajectory,
 cutting the web (58) along a second transverse edge (26, 33) to form a two-dimensional pre-form (17), the pre-form (17) comprising the first and the second transverse edge (24, 31; 26, 33) and two longitudinal edges (27, 29), each longitudinal edge having two waist sections (39, 39'; 41, 41') and a crotch section (40, 40') located intermediate the waist sections, a sealing area (43, 45; 47, 49) being located adjacent and inboard of each waist section, and wherein the longitudinal edges of the pre-form (17) are formed by the transverse edges (24, 31; 26, 33) of the web (58), the transverse edges of the pre-form (17) corresponding to sections of the longitudinal sides (28, 30) of the web (58),
 gripping the pre-form adjacent each waist section with gripping means (60, 61, 62, 63) in four gripping areas (51, 53, 55, 57), each gripping area being located near a respective sealing area.

jointly rotating at least the gripping means which hold the gripping areas in the region of one of the transverse edges around at least one hinging axis (75, 77) extending substantially parallel to the transverse edges (24, 31; 26, 33) of the pre-form (17) to place the transverse edge (24, 31) generally parallel and opposite to the second transverse edge (26, 33),
 superimposing the sealing areas (43, 49; 45, 47) in a contacting relationship,
 joining the superimposed sealing areas in a sealing means (78, 79), thus forming the undergarment, and
 releasing the undergarment from the gripping means.
 2. Method according to claim 1, wherein the step of superimposing the sealing areas comprises rotating each gripping means (60, 61, 62, 63) around a respective axis of rotation (56, 56', 68', 68'') extending generally parallel to the longitudinal sides (27, 29) of the pre-form to place the sealing areas in an overlapping relationship to form overlapping side seams (7, 9), or in an abutting relationship to form abutting side seams.

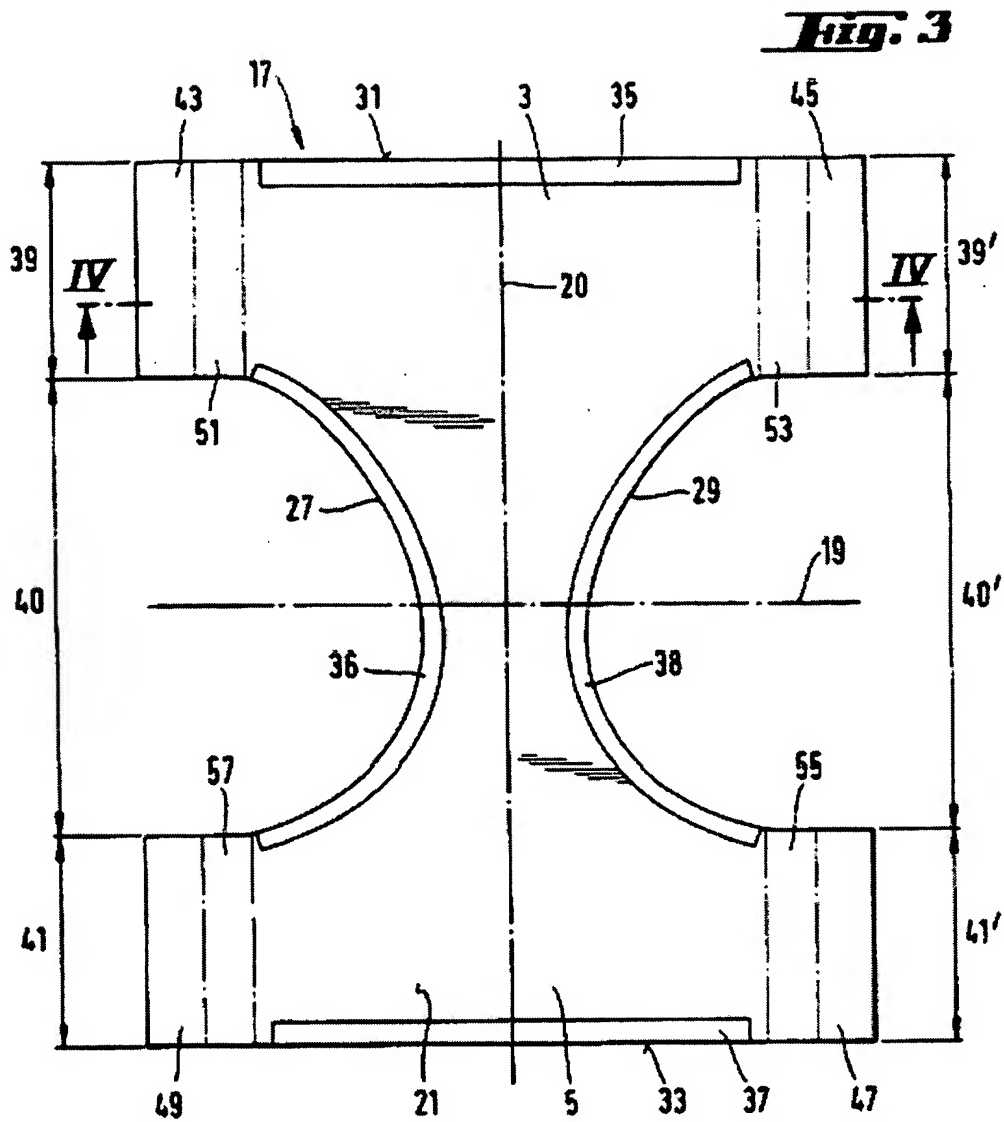
Col. 2, lines 34-39:

By consecutively rotating the ears of the absorbent article perpendicularly to the plane of the pre-form, the sealing areas are made to overlap and can be contacted for instance by an ultrasonic sealing unit to attach the overlapping sealing areas. Overlapping side seams are located in the plane of the side panels of the finished undergarment. Hence the seams are of pleasing aesthetics and are wearer-friendly. Furthermore, in case the undergarment is formed by a disposable absorbent article, the overlapping side seams have a high shear strength but can easily be manually detached for disposal of the absorbent article. The overlapping seams may alternatively be connected by mechanical fasteners, such as Velcro® hook-type and loop-type materials or by means of adhesive tapes. Such re-fastenable seams can be undone by the user without ripping the article and can be reclosed for further use.

Col. 15, lines 50-54:

3. Method according to claim 1, comprising the step of forming the web (58) by combining a liquid-impervious backsheet (23, 23'), an absorbent core (25) and a liquid-pervious topsheet (21), such that the undergarment (1) is an absorbent article.

Figure 3:



Col. 6, lines 17-65:

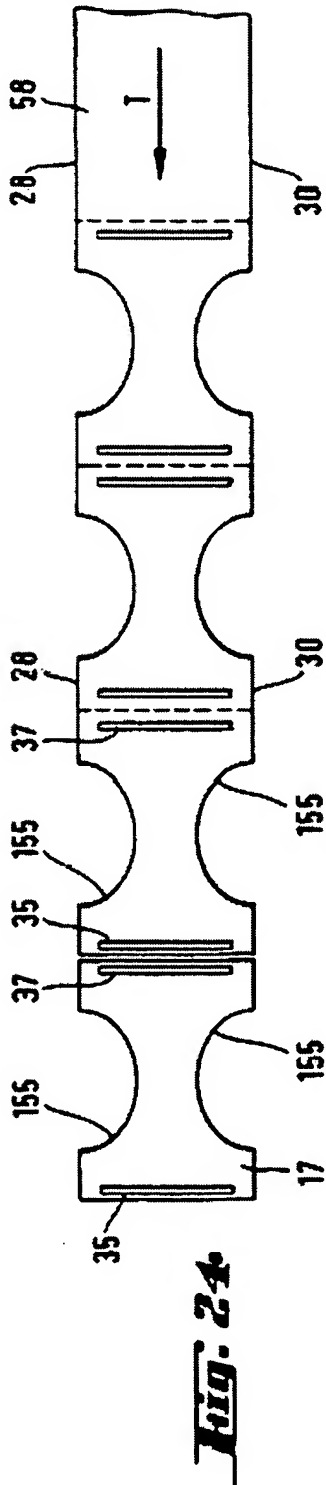
The undergarment 1 as shown in FIGS. 1 and 2 can comprise a single layer or multiple layers of woven or non-woven material, and may comprise a thermoplastic film. The undergarment may form a re-usable diaper holder which is to be used in combination with a disposable absorbent insert core. Preferably, the undergarment forms a unitary disposable absorbent article, in which a liquid-impermeable backsheet, an absorbent core and a liquid permeable topsheet are combined to form an integral structure.

As used herein, the term "absorbent article" refers to devices which absorb and contain body exudates, and, more specifically, refers to devices which are placed against or in proximity to the body of the wearer to absorb and contain the various exudates discharged from the body. The term "disposable" is used herein to describe absorbent articles which are not intended to be laundered or otherwise restored or reused as an absorbent article (i.e., they are intended to be discarded after a single use and, preferably, to be recycled, composted or otherwise disposed of in an environmentally compatible manner). A "unitary" absorbent article refers to absorbent articles which are formed of separate parts united together to form a coordinated entity so that they do not

require separate manipulative parts like a separate holder and liner. The present invention is also applicable to other absorbent articles such as incontinent briefs, incontinent undergarments, diaper holders and liners, feminine hygiene garments, and the like.

FIG. 3 shows the pre-form 17, which will be further referred to as "blank" 17, for forming an absorbent article having side seams. FIG. 4 shows a cross-sectional view of the blank 17 along the line I—I of FIG. 3. The blank 17 comprises a liquid-pervious topsheet 21, a liquid-impermeable backsheet 23 and an absorbent core 25 interposed between the topsheet and the backsheet. The blank 17 comprises two longitudinal edges 27,29 and two transverse edges 31,33. The longitudinal edges 27,29 and the transverse edges 31,33 form the periphery of the blank 17. The longitudinal edges 27,29 extend generally in the direction of the longitudinal center line 20 and comprise cut-out regions which are to form the leg openings 11,13 of the absorbent article in its assembled state. The blank 17 comprises waist elastics 35,37 and leg elastics 36,38. Each longitudinal edge 27,29 comprises a first waist section 39,39' and a second waist section 41,41'. The waist sections 39,39' and 41,41' of the longitudinal edges 27,29 are located on both sides of a central crotch section 40,40' of each edge 27,29. Each waist section comprises a sealing area 43,45,47,49. A gripping area 51,53, 55,57 is located adjacent each sealing area 43,45,47,49.

Figure 24:



Col. 14, lines 1-32:

14

The disposable absorbent article preferably further comprises an elastic waist feature 35,37 that provides improved fit and containment. The elastic waist feature is that portion or zone of the absorbent article which is intended to elastically expand and contract to dynamically fit the wearer's waist. The elastic waist feature at least extends longitudinally outwardly from at least one of the waist edges of the absorbent core 25 and generally forms at least a portion of the end edge of the blank 17. Disposable absorbent articles are generally constructed so as to have two elastic waist features 35,37, one positioned in the first waist region and one positioned in the second waist region, although diapers can be constructed with a single elastic waist feature. Further, while the elastic waist feature or any of its constituent elements can comprise a separate element affixed to the absorbent article, the elastic waist feature is preferably constructed as an extension of other elements of the diaper such as the backsheet 23 or the topsheet 21, preferably both the backsheet 23 and the topsheet 21.

20 The at least one elastic waistband 35,37 may be constructed in a number of different configurations including those described in U.S. Pat. No. 4,515,595 issued to Kievit et al. on May 7, 1985 and the above referenced U.S. Pat. No. 5,151,092; each of these references being incorporated
25 herein by reference.

FIG. 24 shows a top plan view of the web 58, wherein the blanks 17 are oriented with their longitudinal sides in the direction of transport, T, of the web 58. Leg cut-out regions 155 are provided along the longitudinal sides 28,30 of the web 58 and waist elastic elements 35,37 are applied transversely across the web.
30

Appendix C

Portions of the Widlund patent cited by the Examiner.

Figure 1:

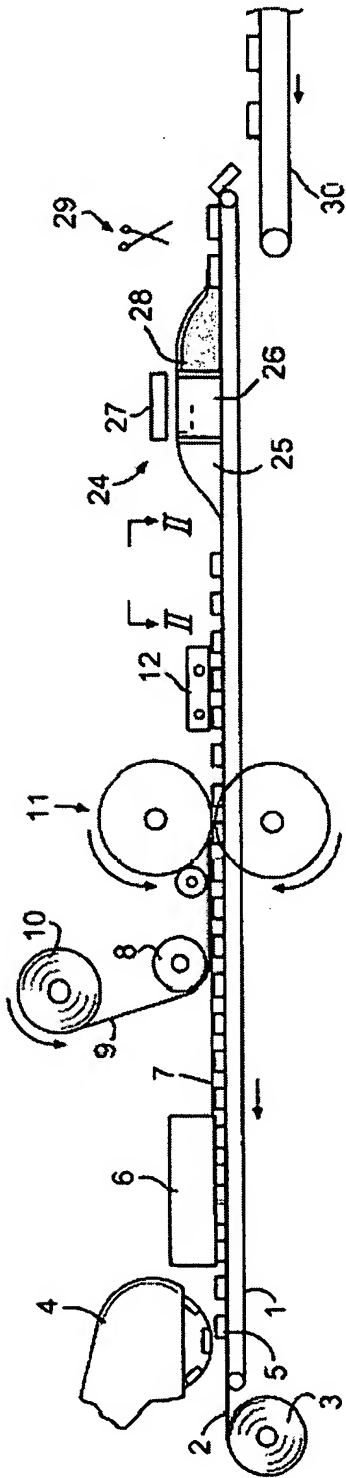


FIG. 1

Figure 2:

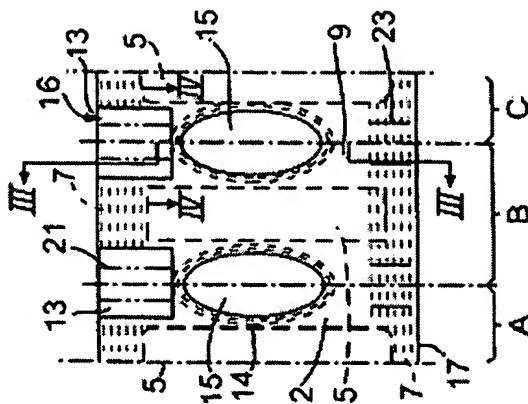
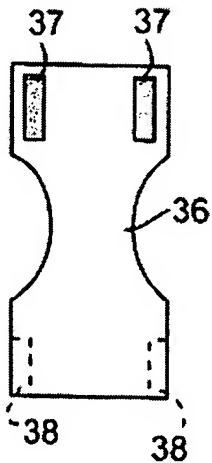
**FIG. 2**

Figure 11:

**FIG. 11**

Col. 3, lines 34-40:

further described.

Located downstream of the device 11 is a device 12 which functions to attach fastener elements 13 to the underlying moving web of mutually connected blanks. The device 12 will preferably include plungers or the like that are operative in pressing glue-coated fastener elements 12 against the casing sheet 9.

FIG. 2 illustrates from above a section of the web of

Col. 4, lines 33-40:

The web moving through the guide means 28 is thus
 35 comprised of a string of mutually joined pants-type diapers
 which after exiting from the guide means 28 are separated
 from one another by means of an appropriate cutting tool 29
 and conveyed by suitable conveying means 30 to a pack-
 aging station in which they are packaged as individual
 40 pants-type diapers.

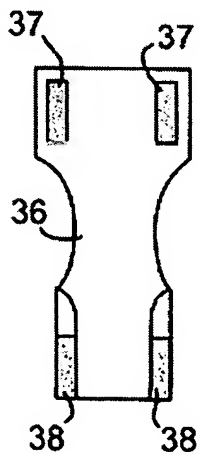
FIG. 4 illustrates part of the web in the final stage of the

Col. 7, lines 7-15:

7

areas. The waist elastic of pants-type diapers and sanitary
 panties are also dimensioned with a starting point from a
 specific circumferential length in the natural state of the
 product, i.e. when no load is exerted thereon, and conse-
 quently it is important to the intended function of the waist
 elastic that its circumferential length is retained after refas-
 5 tening an opened pants-type diaper or sanitary panty. It will
 be understood, however, that the fastener means need not
 have the illustrated configuration and that other types of
 fastener means can be used within the scope of the
 invention, such as self-fastening or hook and loop means,
 10 e.g. VELCRO® tape, or adhesive applications that have a
 relatively large extension in the circumferential direction of
 the pant diaper and also in its height direction, i.e. a direction
 at right angles to its circumference. However, it is conven-
 15 nient in such casings to mark or indicate on the casing sheets

Figure 12:

**FIG. 12**

Col. 8, lines 3-13:

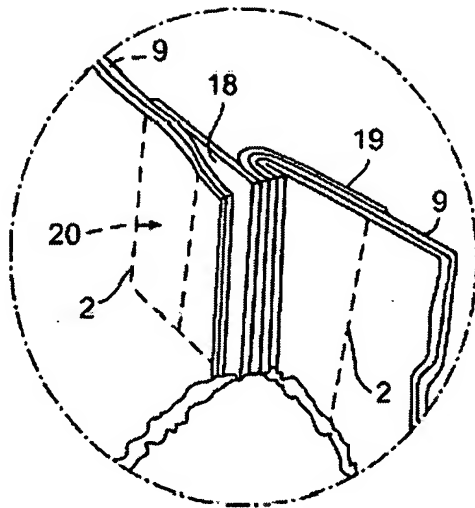
8

conjunction therewith, instead of folding the fastener elements. An example of this is illustrated in FIGS. 11 and 12. These Figures illustrate schematically a pants-type diaper blank 36 in which one part 37 of a fastener element is comprised of two mutually engaging parts 37, 38 which are fastened respectively to the inner surface of the blank at the front side parts thereof, while the other part 38 of the fastener elements is fastened to the outer surface of the blank at the rear side parts thereof. FIG. 11 shows the blank 36 from above, subsequent to having cut the blank from a web of mutually joined blanks. The parts 38 of the fastener elements are preferably attached to the outer casing sheet in an initial stage of manufacture, prior to mounting absorbent bodies, elastic elements and an inner casing sheet. In order to produce a finished pants-type diaper from a blank that has the configuration illustrated in FIG. 11, those parts of the

Col. 8, lines 14-27

to produce a finished pants-type diaper from a blank that has the configuration illustrated in FIG. 11, those parts of the rear side parts of the blank 36 that contain the parts 38 of the fastener elements are folded against the inner surface of the blank, so as to provide a blank 36 having the configuration shown in FIG. 12. The blank is then folded so that the front and the rear side parts thereof are placed edge-to-edge, and the engaging parts 37, 38 are pressed firmly against one another. The parts 38 include fastener elements of the earlier described kind, and self-fastening or hook and loop tapes and adhesive tapes may also be used, since the resultant connection or join will be subjected essentially to shear forces when the diaper is worn. It will be understood that the parts 38 may be applied after folding-in the rear side parts

Fig. 5A:

**FIG. 5A**

Col. 3, line 66 to Col. 4, line 11:

between the individual blanks A, B and C, as illustrated in FIG. 2 in dash-dotted lines.

The fastener elements 13 as best shown in FIG. 5A, are comprised of two similarly shaped rectangular pieces 18, 19

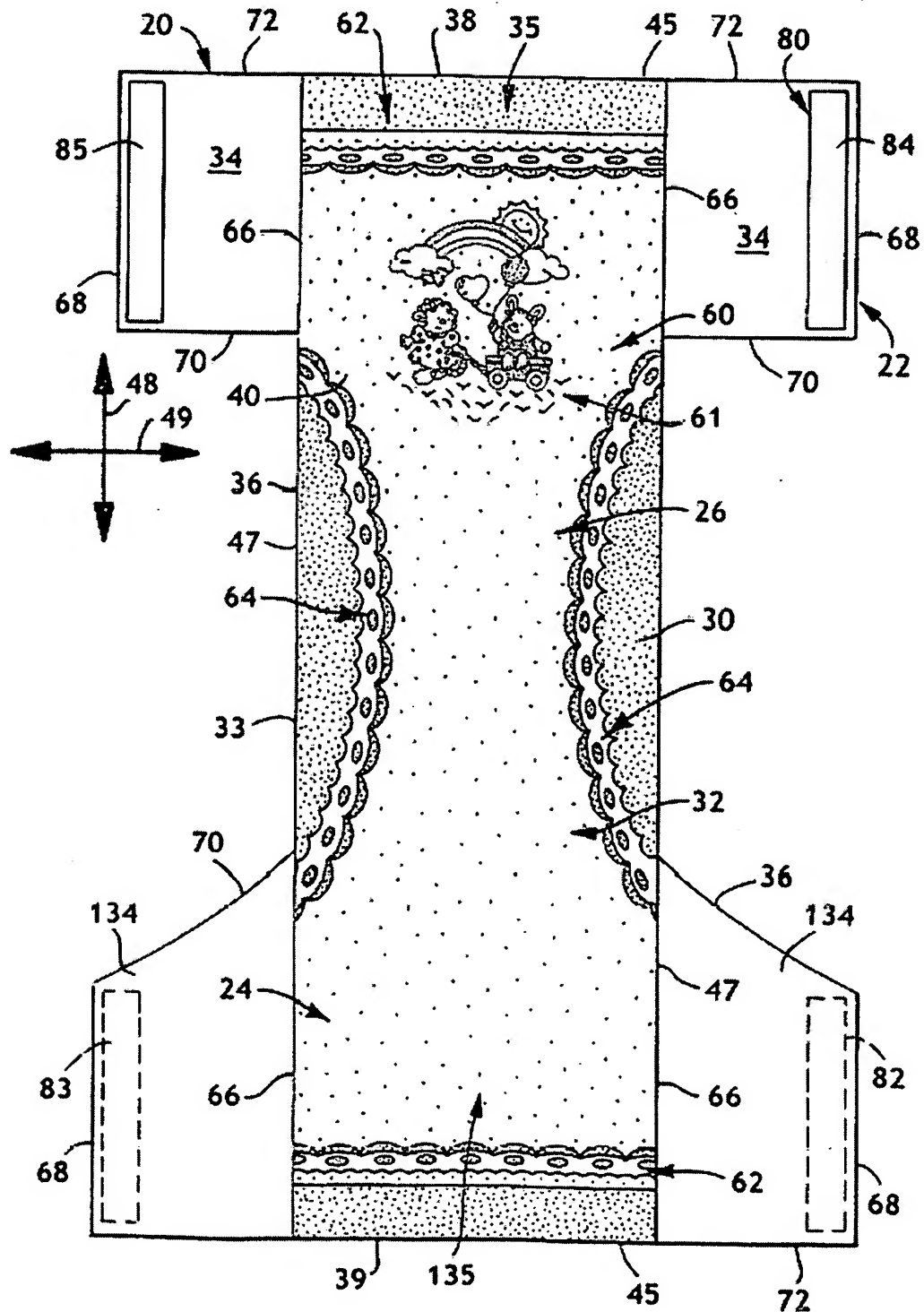
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of flexible material which are joined together by two releasable and refastenable fastener means 20. As will best be seen from FIGS. 3A and 4, each of the fastener means 20 is comprised of a row of projections 21 which extend from the fastener piece 19 and pass through a row of through-penetrating openings 22 formed in the fastener piece 18 and complementary in shape to a respective projection 21. The fastener elements 13 are placed in the front side parts of the blanks, symmetrically in relation to the imaginary blank separation lines, so that the two fastener means will lie on opposite sides of said lines.

Appendix D

Portions of the Fletcher application cited by the Examiner.

Figs. 2 and 3:



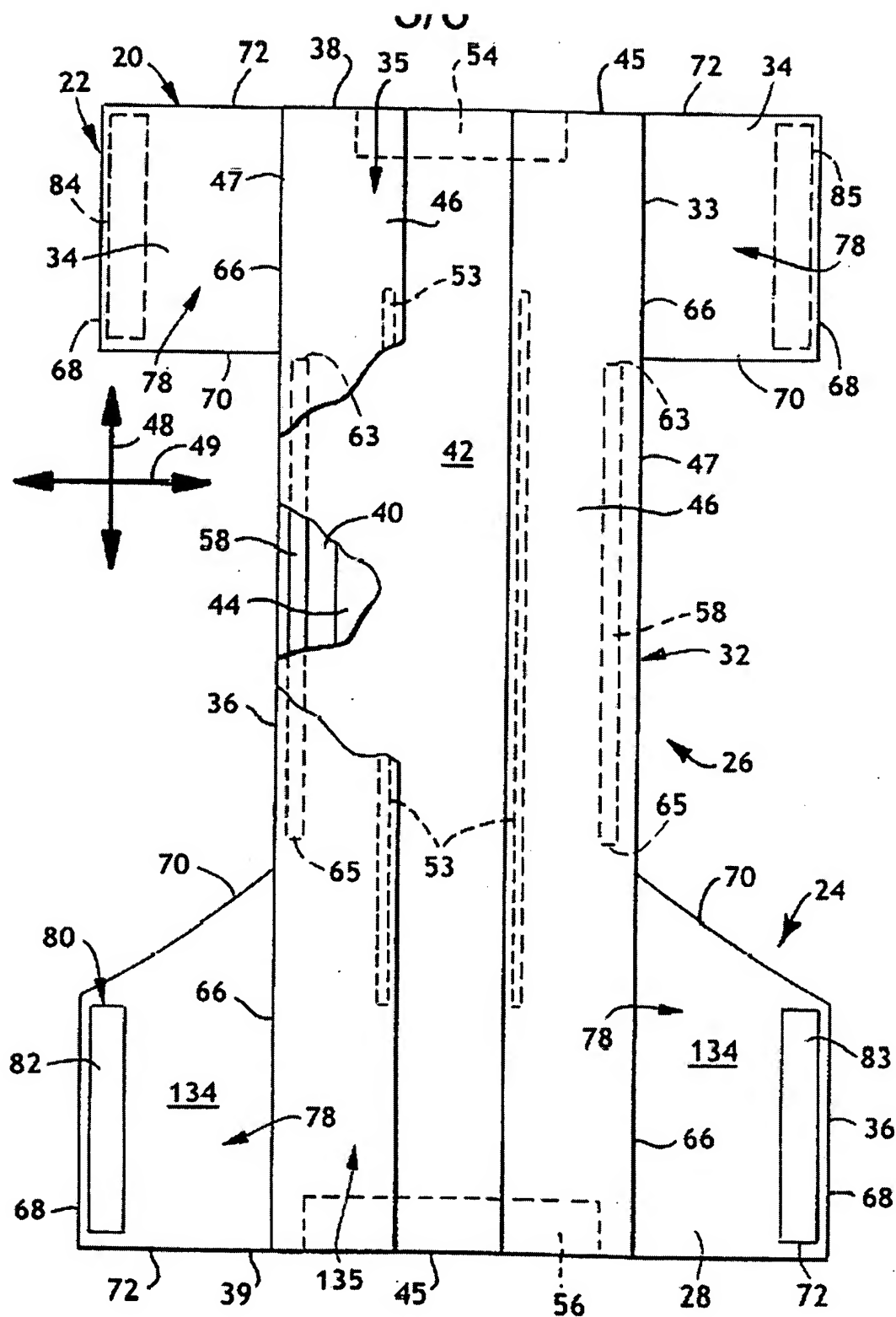


FIG. 3

Page 20, line 22 to Page 21, line 6:

With particular reference to Figure 3, the first and second fastening components 82 and 83 are desirably disposed on the inner surface 28 of the training pant 20 in the back waist region 24. The first and second fastening components 82 and 83 are desirably positioned along the distal edges 68 of the back side panels 134, and abutting or adjacent to the waist end edge 72. In certain embodiments, for example, the first and second fastening components 82 and 83 are located within about 2 centimeters, and more particularly within about 1 centimeter, of the distal edges 68, the waist end edges 72, and the leg end edges 70.

With particular reference to Figure 2, the first and second mating fastening components 84 and 85 are disposed on the outer surface 30 of the training pant 20 in the front waist region 22. The first and second mating fastening components 84 and 85 are sized to receive the first and second fastening components 82 and 83 and are desirably positioned along the distal edges 68 of the front side panels 34, and abutting or adjacent to the waist end edge 72. In certain embodiments, for example, the first and second mating fastening components 84 and 85 are located within about 2 centimeters, and more

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particularly within about 1 centimeter, of the distal edges 68, the waist end edges 72, and the leg end edges 70. Where the fastening components 82 and 83 comprise loop type fasteners disposed on the inner surface 28 and the mating fastening components 84 and 85 comprise hook type fasteners disposed on the outer surface 30, the fastening components can be sized larger than the mating fastening components to ensure coverage of the rigid, outwardly-directed hooks.

Page 20, lines 6-21:

5 No. 36549.

Hook type fasteners typically comprise a fabric or material having a base or backing structure and a plurality of hook members extending upwardly from at least one surface of the backing structure. In contrast to the loop type fasteners which desirably comprise a flexible fabric, the hook material advantageously comprises a resilient material
10 to minimize unintentional disengagement of the fastener components as a result of the hook material becoming deformed and catching on clothing or other items. The term "resilient" as used herein refers to an interlocking material having a predetermined shape and the property of the interlocking material to resume the predetermined shape after being engaged and disengaged from a mating, complementary interlocking material.
15 Suitable hook material can be molded or extruded of nylon, polypropylene or another suitable material. Suitable single-sided hook materials for the fastening components 82 and 83 or the mating fastening components 84 and 85 are available from Velcro Industries B.V., Amsterdam, Netherlands or affiliates thereof, and are identified as Velcro HTH-829 with a uni-directional hook pattern and having a thickness of about 0.089
20 millimeters (3.5 mils) and HTH-851 with a uni-directional hook pattern and having a thickness of about 0.051 millimeters (2 mils).

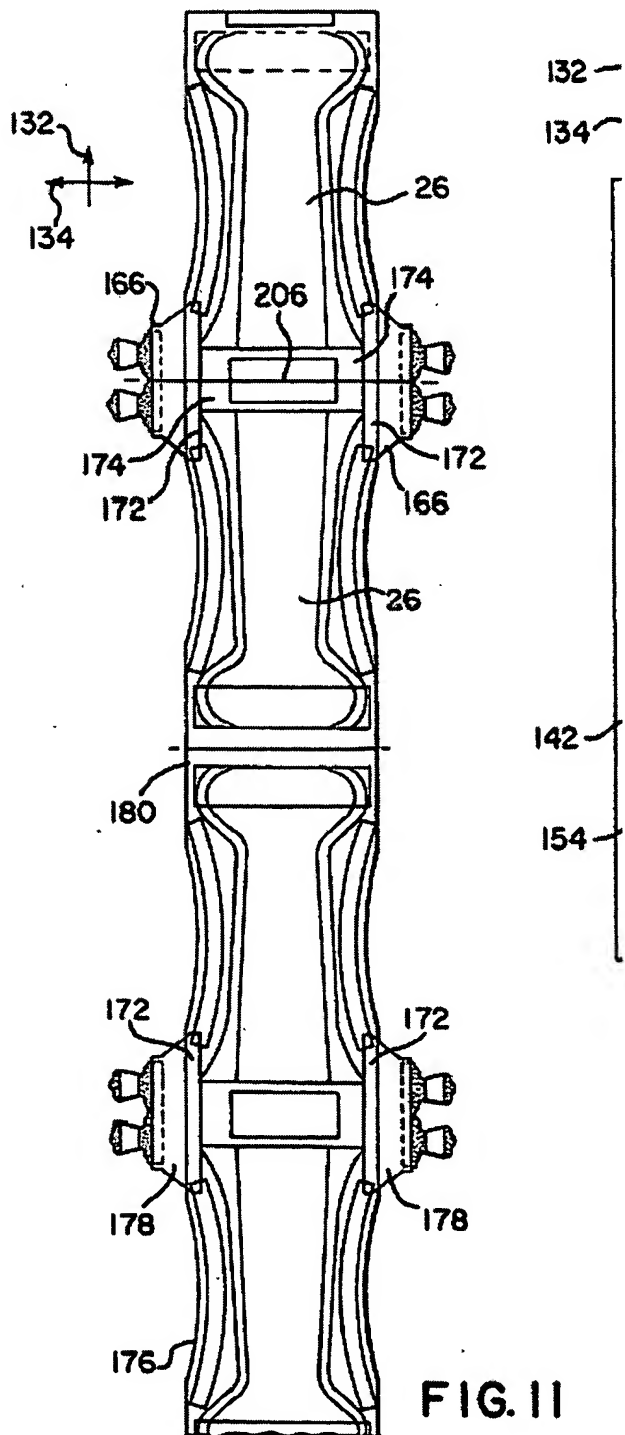
Page 23, lines 9-15:

The training pant 300 also includes first and second fastening components 82 and
10 83 bonded to the inner surface 28 of the back attachment panels 314 and 316, and first and second mating fastening components 84 and 85 bonded to the outer surface 30 of the front attachment panels 310 and 312. In one particular embodiment, the fastening components 82 and 83 comprise loop type fasteners and the mating fastening components 84 and 85 comprise hook type fasteners that are directed outward, away
15 from the body to minimize the chance of skin irritation.

Appendix E

Portions of the Roessler patent cited by the Examiner.

Fig. 11:



Col. 24, lines 31-47:

30 ing or the like.

In particular aspects of the invention, at least one composite subassembly 160, and preferably both subassemblies 160 and 162, can be divided along a selected plurality of division lines 164 which are configured and
35 arranged to extend substantially laterally across each subassembly to provide a plurality of longitudinally paired, combined panel-and-fastener components 178 (FIG. 9). At least one of the longitudinally paired panel-and-fastener components 178 can be secured to each of
40 two opposed, laterally spaced side regions 172 of an appointed waistband section 174 of an article web 176 to provide a composite article web 180 (FIG. 11). The composite article web is severed along a cross-direction 134 thereof at a location 206 which operably divides
45 each of the longitudinally paired panel-and-fastener components 178 into two individual panel-and-fastener components 166.

In optional configurations of the invention, the method can include the step of

Appendix F

Portions of the Johansson patent cited by the Examiner.

Figs. 4 and 5:

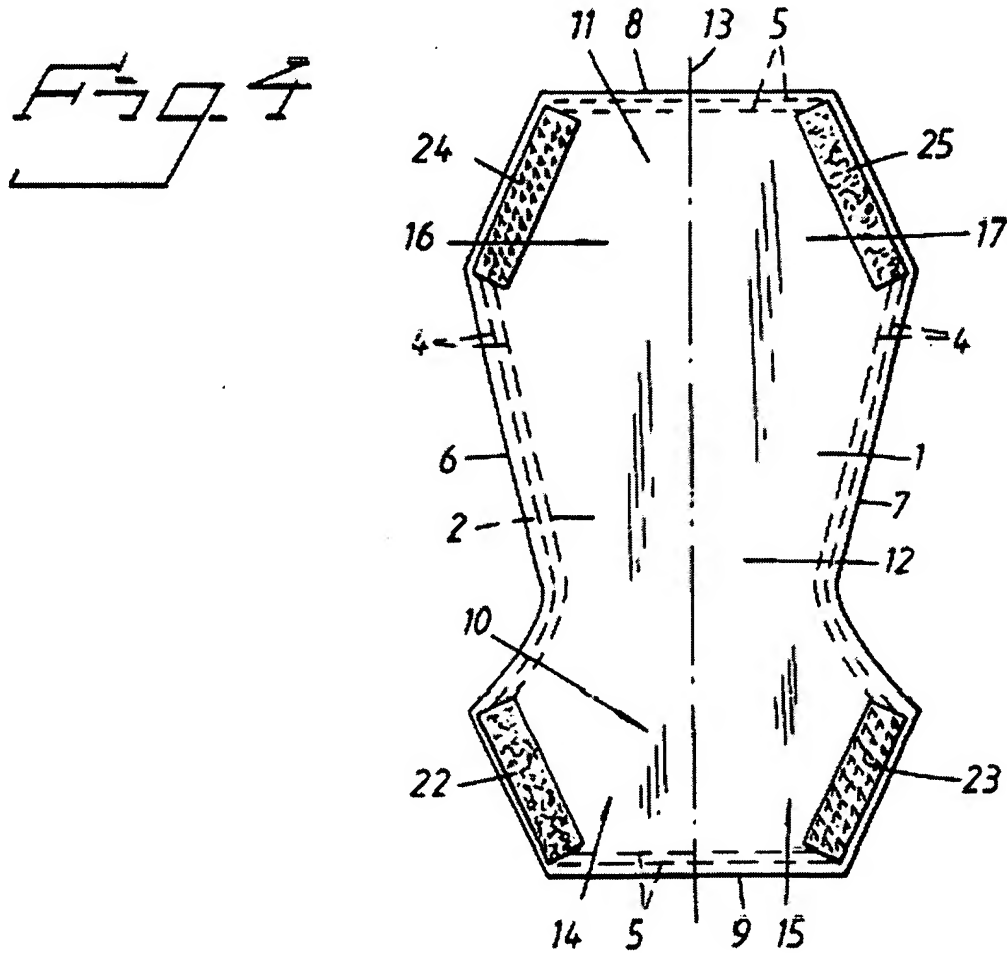
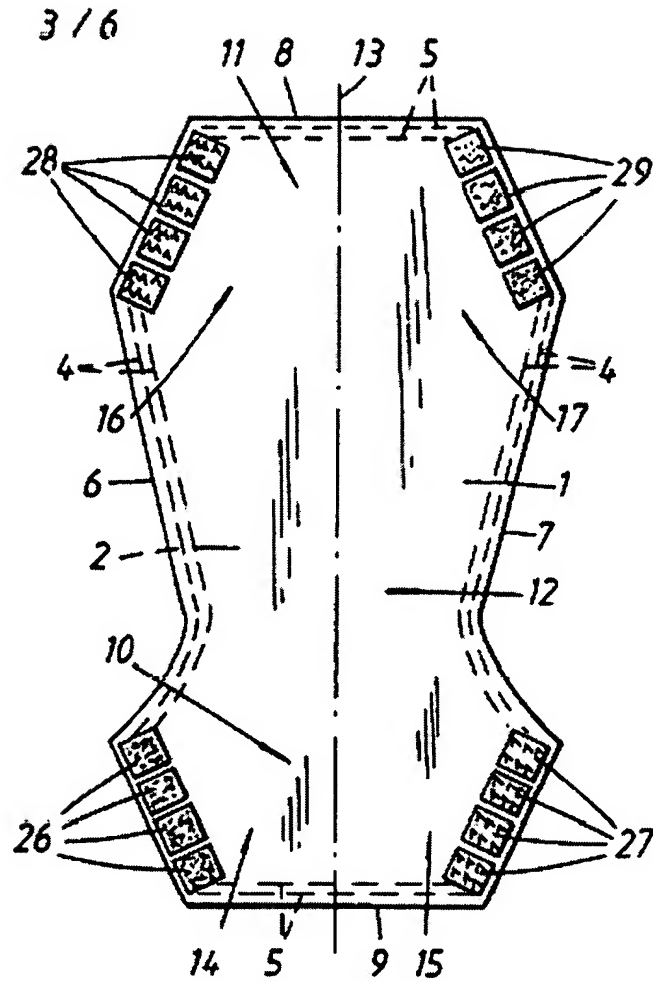


Fig. 5



Page 17, line 24 to Page 18, line 20:

25 Figure 4 illustrates a second embodiment of an inventive
diaper. The diaper shown in Figure 4 differs from the diaper
shown in Figure 1 by virtue of the fact that all fastener
devices 22-25 are mounted on one and the same side of the
diaper, namely on the liquid-permeable casing sheet 1. In the
30 case of this embodiment, when the diaper is donned and closed
to its pants-like configuration by the user, the side end-
parts on the same respective side of the contemplated centre
line 13 will form combined flaps which face outwardly of the
wearer. Thus, the diaper connection obtained with this
embodiment is not only subjected essentially to the shear
35 forces that are more favourable from the aspect of load, but
instead will mainly be subjected to the less desirable
peeling forces. However, this embodiment affords other

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advantages. For instance, it may be beneficial from the
aspect of manufacture to mount all fastener devices on one
and the same side of the diaper, particularly when the
individual diapers are produced by cutting the diapers from
5 an originally continuous product web. This embodiment may
also be beneficial when the article concerned is a so-called
openable and re-closable pants-type diaper whose fastener
devices are fastened together in conjunction with the
manufacture of the pants-type diaper, for instance in the
10 manner described in our Swedish Patent Application SE
94021227-5.

Figure 5 illustrates an embodiment which differs from the
Figure 4 embodiment by virtue of the fact that the fastener
15 devices 26-29 are four in number on each side end-part 14-17.
Those edge-parts of the diaper side end-parts along which the
fastener devices 26-29 are mounted will herewith be less
rigid than when the fastener device extends along a distance
which corresponds to the distance covered by the four smaller
20 devices 26-29.